



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
& ENVIRONMENTAL CONTROL  
DIVISION OF AIR QUALITY  
655 S. Bay Road, Suite 5N  
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402  
Fax No.: (302) 739 - 3106

September 16, 2014

**Permit: APC-81/0829-OPERATION (Amendment 9)(PSD-NSR)**  
**Delaware City Refinery**  
**Optimized NOx Emissions Limits for the Fluid Coking Unit (FCU)**

Delaware City Refining Company  
4550 Wrangle Hill Road  
Delaware City, DE 19706

ATTENTION: Jose Dominguez  
Refinery Manager

Dear Mr. Dominguez:

Pursuant to 7 **DE Admin. Code** 1102, Section 2.1.3, approval of the Department of Natural Resources and Environmental Control is hereby granted for the incorporation of optimized short and long term NOx emission limits for the Fluid Coking Unit (FCU) at the Delaware City Refinery in Delaware City, Delaware in accordance with the following documents:

- Application for the FCU submitted on Forms AQM-1, AQM-2, AQM-3.1 and AQM-5 dated July 21, 2014 and signed by Heather Chelpaty.

This permit is issued subject to the following conditions<sup>1</sup>:

1. **General Provisions**

- 1.6 Pursuant to the requirements of 11.5.2 of 7 **DE Admin. Code** 1102, the Department shall transfer the specified terms and conditions in these permits to the 7 **DE Admin. Code** 1130 permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130.

2. **Emission Limitations**

- 2.1 Air contaminant emission levels from the FCU WGS shall not exceed specified by 7 **DE Admin. Code** 1100 (the *Regulations*) and the following:

2.1.2 NO<sub>x</sub>:

<sup>1</sup> This permit supplements **Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)** dated September 7, 2011 and follows the same numbering sequence.

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- 2.1.2.1 NO<sub>x</sub> emissions shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis.
- 2.1.2.2 NO<sub>x</sub> emissions shall not exceed 152.0 ppmvd @ 0 % oxygen on a 7-day rolling average basis.
- 2.1.2.3 NO<sub>x</sub> emissions shall not exceed 115.2 ppmvd @ 0 % oxygen on a 365-day rolling average basis.

**7. Administrative Conditions**

- 7.4 This permit supplements **Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)** dated September 7, 2011 and follows the same numbering sequence. Therefore all other conditions remain unchanged.

Sincerely,



Paul E. Foster, P.E.  
Program Manager  
Engineering & Compliance Branch

PEF:CRR:pjg  
F:\ENGandCOMPLIANCE\CRR\crr14104.doc

pc: Dover Title V File  
Dawn Minor  
Bruce Augustine – US EPA Region 3  
Cathleen VanOsten – US EPA



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September 16, 2014

**Permit: APC-82/0981-OPERATION (Amendment 10)(NSPS)**  
**Delaware City Refinery**  
**Optimized NO<sub>x</sub> Emissions Limits for the Fluid Catalytic Cracking Unit (FCCU)**

Delaware City Refining Company  
4550 Wrangle Hill Road  
Delaware City, DE 19706

ATTENTION: Jose Dominguez  
Refinery Manager

Dear Mr. Dominguez:

Pursuant to 7 DE Admin. Code 1102, Section 2.1.3, approval of the Department of Natural Resources and Environmental Control is hereby granted for the incorporation of optimized short and long term NO<sub>x</sub> emission limits for the Fluid Catalytic Cracking Unit (FCCU) at the Delaware City Refinery in Delaware City, Delaware in accordance with the following documents:

- Application for the FCCU submitted on Forms AQM-1, AQM-2, AQM-3.1 and AQM-5 dated July 21, 2014 and signed by Heather Chelpaty.

This permit is issued subject to the following conditions<sup>1</sup>:

1. **General Provisions**

- 1.6 Pursuant to the requirements of 11.5.2 of 7 DE Admin. Code 1102, the Department shall transfer the specified terms and conditions in these permits to the 7 DE Admin. Code 1130 permit via the administrative permit amendment process specified in 7 DE Admin. Code 1130.

2. **Emission Limitations**

- 2.1 Air contaminant emission levels from the FCU WGS shall not exceed specified by 7 DE Admin. Code 1100 (the *Regulations*) and the following:
- 2.1.2 NO<sub>x</sub>:

<sup>1</sup> This permit supplements Permit: **APC-82/0981-OPERATION (Amendment 9)(NSPS)** dated April 30, 2012 and follows the same numbering sequence.

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- 2.1.2.1 NO<sub>x</sub> emissions shall not exceed those prescribed in Condition 3, Table 1e.4.i of **Permit: AQM-0003/00016-Part 2 (Revision 5)** dated April 5, 2011.
- 2.1.2.2 NO<sub>x</sub> emissions shall not exceed 137.0 ppmvd @ 0 % oxygen on a 7-day rolling average basis.
- 2.1.2.3 NO<sub>x</sub> emissions shall not exceed 100.7 ppmvd @ 0 % oxygen on a 365-day rolling average basis.

**8. Administrative Conditions**

- 8.4 This permit supplements **Permit: APC-82/0981-OPERATION (Amendment 9)(NSPS)** dated April 30, 2012 and follows the same numbering sequence. Therefore all other conditions remain unchanged.

Sincerely,



Paul E. Foster, P.E.  
Program Manager  
Engineering & Compliance Branch

PEF:CRR:pjg  
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pc: Dover Title V File  
Dawn Minor  
Bruce Augustine – US EPA Region 3  
Cathleen VanOsten - US EPA Region 3